

Application Serial No. 10/648,012
Response to Office Action of March 30, 2007
Attorney Docket No. W003-4000

REMARKS/ARGUMENTS

Applicant has reviewed the Office Action (OA) of March 30, 2007 and made amendments to the claims, as indicated hereinabove, to overcome the Examiner's rejections and place the application in condition for allowance. No new matter has been added.

Status of Claims

Claims 19-34, 37, 38, 41-53 and 54-59 are pending in this application.

Claims 19, 30, 43, 44, 51, 52, and 53 have been amended.

Claims 54-59 have been added.

Claim Rejections Under 35 U.S.C. §112

The rejection of Claims 19, 30, and 53 under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement, is respectfully traversed.

In the interest of moving forward with the prosecution, Applicant has omitted "to optimize digital signal processing" from the claims, such as Claim 19. In some instance, the omitted language has been changed to "to enhance detection of a unique user code...", as in Claim 30. The applicant has also deleted "utilizing embedded fuzzy logic to optimize digital signal processing" language from the preamble of Claim 53. In Claim 53, a "fuzzy logic detector to enhance detection..." has been added to the claim. Support for the amendments can be found in paragraph para. [0005] of the Response dated August 15, 2006.

Based on the above, Applicant respectfully requests that the rejection under 35 U.S.C. §112, first paragraph of Claims 19, 30 and 53 be withdrawn.

The rejection of Claims 19-32 and 53 under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement, is respectfully traversed.

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Claim Rejections Under 35 U.S.C. §102

The rejection of Claims 33, 34 and 37-38 under 35 U.S.C. §102(e) as being anticipated by Lindemann (U.S. Patent Application 2004/0223622) is respectfully traversed.

Claim 33 recites

...at least one module adapted to audibly reproduce said processed CDMA signal, said CDMA communication configuration providing a user with independent audio reproduction free of interference from other users or wireless devices. (Emphasis added)

The above emphasized claim language is not taught or suggested by Lindemann. Lindemann does not address reproduction that is interference free. Furthermore, Applicant observes that Lindemann does not mention interference or address the problem identified by Applicant and thus Applicant's solution to provide *a user with independent audio reproduction free of interference from other users or wireless devices*. Instead, Lindemann is directed to digital wireless loudspeaker system and the delivery of signals to the speakers. Thus, Lindemann is not directed to a system capable of (1) providing a user with *independent audio reproduction*; and (2) *reproduction free of interference from other users or wireless devices*. By contrast, Lindemann simply provides a "loudspeaker system" where anyone can listen.

The rejection relies on FIG. 15A for a teaching that the "speakers reproduce, which receive the audio without interference from the other speakers." (See page 4 of the OA.) A quick search of the patent application publication reveals that there is no mention of the term "interference" in Lindemann. It is well known by those skilled in the art that radio frequency (RF) interference originates from a source (i.e., transmitter) external to a RF signal path and produces undesired artifacts in the RF signal. Lindemann does not address speaker receiver interference due to many same transmitters sharing the same space [Lindemann 20040223622 paragraph 0011 "...signal generated by the single RF transmitter in the audio transmission device;" and

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paragraph 0058 "...Signal generated by the single RF Transmitter."]. Based on the foregoing, Applicant respectfully requests that FIG. 15A does not provide any evidence that the speakers "receive the audio without interference."

Claim 34 contains similar language. Thus, the remarks set forth above in relation to Claim 33 equally apply to Claim 34.

Accordingly, Lindemann cannot anticipate Applicant's Claims 33 and 34. For at least this reason, Applicant respectfully requests withdrawal of the rejection of Claims 33 and 34 by Lindemann under 35 U.S.C. §102(e).

Dependent Claims 37 and 41 depend directly or indirectly from independent Claim 33. Furthermore, dependent Claims 38 and 42 depend from independent Claim 34. These dependent claims contain all of the limitations of independent Claims 33 or 34, thus, any rejections under 35 U.S.C. §§102 or 103 should be withdrawn by virtue of their dependency from independent Claims 33 or 34.

Applicant believes that the dependent claims 37, 38, 41 and 42 recite other features that are clearly lacking from the applied reference(s), and do not acquiesce to any of the rejections.

Claim Rejections Under 35 U.S.C. §103

The rejection of claims 19-32 and 43-53 under 35 U.S.C. §103(a) as being unpatentable by Lindemann et al. (U.S. Patent Application 2004/0223622) in view of Sato (U.S. Patent 4,970,637) in further view of Benthin (U.S. Patent 5,790,595) is respectfully traversed. Claims 19, 30, 43, 44, 52 and 53 have been amended to better clarify applicant's invention.

Applicant would like to mention that in addition to Lindemann, Sato and Benthin, the rejection of Claim 19 also relies upon Roberts, et al. (U.S. Patent 6,415,558), and Schotz (U.S. Patent 5,946,343). Furthermore, the rejection of Claim 19 relies on numerous statements that various claimed elements in Claim 19 are notorious.

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In regards to amended Claim 19, in addition to the remarks set forth above in relation to claims 33 and 34, neither Lindemann, Sato nor Benthin teach *"for private audio reproduction of said music"* or *"reproduce said audio output representative of said music, if the unique user code bit sequence is recognized."* Hence any combination of Lindemann, Sato and Benthin would not produce applicant's invention. There is nothing in Lindemann, the primary reference, to provide a user with private audio reproduction, such as via headphones, and without interference from other users. By contrast, Lindemann simply provides a "loudspeaker system" where anyone can listen; Lindemann does not address interference anywhere. The word "private" does not appear anywhere in Lindemann, Sato or Benthin. Furthermore, "private" does not appear in Schotz '343 or Roberts '558.

In Lindemann, the system does not transmit "music" with a "unique user code bit sequence." At best, Lindemann sends different signals to different speakers and does not require "a unique user code bit sequence."

Furthermore, the wireless digital audio music system of the Applicant utilizes Code Division Multiple Access (CDMA) to allow multiple wireless digital audio music system users to simultaneously share a finite amount of radio frequency spectrum. Lindemann utilizes CDMA to multiplex the audio spectrum [Lindemann 20040223622 paragraph 0075 "This corresponds to a Code Division Multiple Access (CDMA) method of multiplexing the multiple audio channels."]. Moreover, Schotz does not mention CDMA anywhere. Therefore, any combination of Lindemann, Sato, Benthin, Schotz or Roberts would not produce the applicant's invention.

In view of the foregoing amendments and remarks, the rejection of Claim 19 under 35 U.S.C. §103(a) as being unpatentable by Lindemann in view of Sato in further view of Benthin, Schotz and/or Roberts, as well as, the numerous assertions by the Examiner that claimed elements are notorious, is respectfully traversed. Thus, the rejection of Claim 19 under 35 U.S.C. §103(a) should be withdrawn.

Dependent Claims 20-29 depend directly or indirectly from independent Claim 19. These dependent claims contain all of the limitations of independent Claim 19,

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Amended Claims 43 and 44 contain similar language as Claim 19. Thus, the remarks set forth above in relation to Claim 19 equally apply.

In view of the foregoing amendments and remarks, the rejection of Claims 43 and 44 under 35 U.S.C. §103(a) as being unpatentable by Lindemann in view of Sato in further view of Benthin, Schotz and/or Roberts, as well as, the numerous assertions by the Examiner that claimed elements are notorious, is respectfully traversed. Thus, the rejection of Claims 43 and 44 under 35 U.S.C. §103(a) should be withdrawn.

Dependent Claims 45, 47, and 49 depend directly or indirectly from independent Claim 43. Dependent Claims 46, 48, and 50 depend directly or indirectly from independent Claim 44. These dependent claims contain all of the limitations of their corresponding independent Claim 43 or 44, thus, any rejections under 35 U.S.C. §103 should be withdrawn by virtue of their dependency therefrom.

Applicant believes that many of the dependent Claims 45-50 recite other features that are clearly lacking from the applied references, and do not acquiesce to any of the rejections.

Claim 51 has been amended to positively recite *"a code generator to add a unique user code to a modulator output, the modulator output including the audio output representative of said music,"* in combination with the other claimed elements. As remarked previously, Lindemann, the primary reference, does not require a *"unique user code"* or adds *"the unique user code to a modulator output ... including the audio output representative of said music."*

Neither Lindemann, Sato, Benthin, Schotz nor Roberts, adds *"the unique user code to a modulator output ... including the audio output representative of said music."* Hence any combination of these references still would not produce applicant's claimed invention.

In view of the foregoing amendments and remarks, the rejection of Claim 51 under 35 U.S.C. §103(a) as being unpatentable by Lindemann in view of Sato in further view of Benthin, Schotz and/or Roberts, as well as, the numerous assertions by

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thus, any rejections under 35 U.S.C. §103 should be withdrawn by virtue of their dependency from independent Claim 19.

Applicant believes that many of the dependent claims 20-29 recite other features that are clearly lacking from the applied references, and do not acquiesce to any of the rejections.

As to amended Claim 30, Claim 30 includes similar amendments described above in relation to Claim 19. Thus, the remarks above equally apply to Claim 30. Claim 30 also includes "*fuzzy logic to enhance detection of the unique user code.*" Since Lindemann does not require a "*unique user code,*" there is no need or motivation to place "*fuzzy logic to enhance detection of the unique user code,*" in the receiver of Lindemann.

Applicant observes that Benthin is relied upon for soft decisions in a receiver or during demodulation of a signal. (See page 7 of the OA.) However, Benthin does not teach "*fuzzy logic to enhance detection of the unique user code,*" in the receiver. Thus, any combination of Lindemann in view of Sato and Benthin still would not produce applicant's claimed invention.

In view of the foregoing amendments and remarks, the rejection of Claim 30 under 35 U.S.C. §103(a) as being unpatentable by Lindemann in view of Sato in further view of Benthin, Schotz and/or Roberts, as well as, the numerous assertions by the Examiner that claimed elements are notorious, is respectfully traversed. Thus, the rejection of Claim 30 under 35 U.S.C. §103(a) should be withdrawn.

Dependent Claims 31 and 32 depend directly or indirectly from independent Claim 30. These dependent claims contain all of the limitations of independent Claim 30, thus, any rejections under 35 U.S.C. §103 should be withdrawn by virtue of their dependency from independent Claim 30.

Applicant believes that many of the dependent Claims 31-32 recite other features that are clearly lacking from the applied references, and do not acquiesce to any of the rejections.

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the Examiner that claimed elements are notorious, is respectfully traversed. Thus, the rejection of Claim 51 under 35 U.S.C. §103(a) should be withdrawn.

Amended Claim 52 includes a positive recitation of a *"unique user code bit sequence"* and *"for private listening of high fidelity audio music."* The remarks set forth above in relation to Claim 19 equally apply to claim 52.

In view of the foregoing amendments and remarks, the rejection of Claim 52 under 35 U.S.C. §103(a) as being unpatentable by Lindemann in view of Sato in further view of Benthin, Schotz and/or Roberts, as well as, the numerous assertions by the Examiner that claimed elements are notorious, is respectfully traversed. Thus, the rejection of Claim 52 under 35 U.S.C. §103(a) should be withdrawn.

Amended Claim 53 includes a positive recitation of a *"unique user code bit sequence"* and *"a fuzzy logic detector to enhance detection of the unique user code bit sequence."* The remarks set forth above in relation to Claim 30 equally apply to Claim 53.

In view of the foregoing amendments and remarks, the rejection of Claim 53 under 35 U.S.C. §103(a) as being unpatentable by Lindemann in view of Sato in further view of Benthin, Schotz and/or Roberts, as well as, the numerous assertions by the Examiner that claimed elements are notorious, is respectfully traversed. Thus, the rejection of Claim 53 under 35 U.S.C. §103(a) should be withdrawn.

The rejection of Claims 41 and 42 under 35 U.S.C. §103(a) as being unpatentable by Lindemann (U.S. Patent Application 2004/0223622) is respectfully traversed.

Lindemann as modified by the Examiner does not teach the deficiencies described in relation to independent Claims 33 and 34. Hence, Lindemann as modified does not teach the claimed invention since Lindemann as modified does not teach all the limitation of the base Claims (33 and 34) from which Claims 41 and 42 depend.

In view of the above remarks, the rejection of Claims 41 and 42 under 35 U.S.C. §103(a) as being unpatentable by Lindemann should be withdrawn.

New Claims 54 and 55 are directed to a wireless digital audio system which

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includes among other things *"an added unique user code," "private audio reproduction"* at *"an audio receiver headphone set"* none of which is taught by the prior art references of record. New Claim 56, by virtue of its dependency, contains all of the limitations of Independent Claim 55, and therefore allowable. Additionally, it recites features that are clearly lacking from the prior art references of record.

New Claim 57 is directed to a wireless headset receiver receiving a wirelessly transmitted CDMA signal with an audio signal and a unique user code. The receiver also has *"headset speakers for privately reproducing said audio music to a user, if the unique user code is recognized"* which is not taught by the prior art references of record. New Claim 58, by virtue of its dependency, contains all of the limitations of Independent Claim 57, and therefore allowable. Additionally, it recites features that are clearly lacking from the prior art references of record.

New Claim 59 is directed to a CDMA transmitter that connects to an existing analog headphone plug to receive an audio output and adds a *"unique user code."* The prior art references of record do not teach or suggest a CDMA transmitter that sends both an audio output and a unique user code to a wireless headphone receiver.

Conclusion

No amendment made was related to the statutory requirements of patentability unless expressly stated herein. Six (6) new claims have been added. Applicant believes that the application, as presently amended, is in condition for allowance. If for any reason the Examiner finds the application other than in condition for allowance, Applicant respectfully requests the Examiner to call the undersigned attorney at the telephone number listed herein below to discuss any steps necessary for placing the application in condition for allowance.

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Respectfully submitted,
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Date: June ¹⁰~~10~~, 2007

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